

**POWER ADAPTER INTERFACE CIRCUITRY FOR PROTECTING A
BATTERY OPERATED SYSTEM**

ABSTRACT OF THE DISCLOSURE

5 An integrated circuit (IC) has logic and timing circuits that are coupled to
discrete circuitry to provide protection and indications whenever an AC adapter that
is faulty or has improper voltage levels or polarity are plugged into a system. In
particular, the IC device provides over-voltage, under-voltage, and reversed-polarity
protections to an electronic system to keep the electronic system from being damaged
by an alternating current (AC) adapter having an improper voltage range or voltage
10 polarity. It also provides a protection that prevents an adapter from powering a host
system that has a short-circuit fault.